

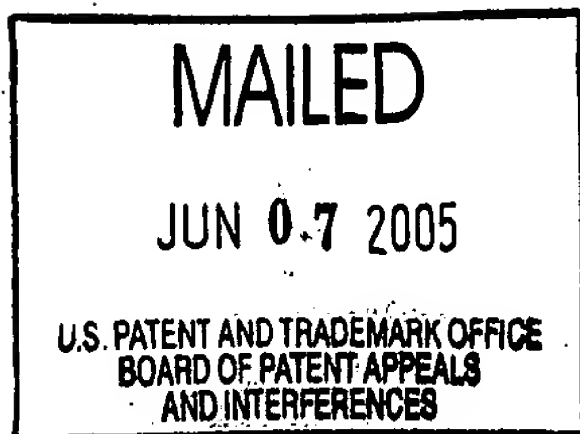
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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

Paper No. 30

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES



Ex parte MARK D. CONOVER

Appeal No. 2005-0252
Application No. 09/168,644

HEARD: May 3, 2005

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Before BARRETT, RUGGIERO, and DIXON, Administrative Patent Judges.
RUGGIERO, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on the appeal from the final rejection of claims 1-7, which are all of the claims pending in the present application.

The disclosed invention relates to a method for producing, from data that specifies a single still image, a compressed video bitstream having a plurality of frames. The still image is encoded into data specifying a single intra ("I") frame, and a single copy of the I frame data is combined with at least one null frame in the compressed video bitstream.

According to Appellant (specification, pages 11 and 12), the assembling of the compressed video bitstream in this manner produces frames of decoded video that reduces the occurrence of the appearance of undesired visual pulsing of the still image.

Claim 1 is illustrative of the invention and reads as follows:

1. A method for producing a compressed video bitstream that includes compressed video data for a plurality of frames from data that specifies a single still image, the method comprising the steps of:

fetching the data for the still image;

encoding the data for the single still image into data for an intra ("I") frame;

storing the encoded I frame data; and

assembling the compressed video bitstream by appropriately combining data for:

at least a single copy of the stored I frame;

at least one null frame; and

various headers required for decodability of the compressed video bitstream;

whereby decoding of the compressed video bitstream produces frames of video which produce images that do not appear to pulse visually.

The Examiner relies on the following prior art:

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| Bowater et al. (Bowater) | 5,404,446 | Apr. 04, 1995 |
| Davis et al. (Davis) | 5,838,678 | Nov. 17, 1998 (filed Jul. 24, 1996) |
| Florencio | 6,310,919 | Oct. 30, 2001 (filed Sep. 25, 1998) |

Claims 2 and 3 stand finally rejected under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the invention. Claims 1-7 stand finally rejected under 35 U.S.C. § 103(a). As evidence of obviousness, the Examiner offers Bowater in view of Davis with respect to claims 1-3 and 5-7, and adds Florencio to the basic combination with respect to claim 4.

Rather than reiterate the arguments of Appellant and the Examiner, reference is made to the Briefs¹ and Answer for the respective details.

OPINION

We have carefully considered the subject matter on appeal, the rejections advanced by the Examiner, the arguments in support of the rejections and the evidence of obviousness relied upon by the Examiner as support for the prior art rejection. We have, likewise, reviewed and taken into consideration, in reaching our decision, Appellant's arguments set forth in the Briefs along with the Examiner's rationale in support of the rejections and arguments in rebuttal set forth in the Examiner's Answer.

It is our view, after consideration of the record before us, that claims 2 and 3 particularly point out the invention in a manner which complies with 35 U.S.C. § 112, second paragraph. We are also of the view that the evidence relied upon and the level of

¹ The Appeal Brief (Second) was filed September 22, 2003 (Paper No. 21). In response to the Examiner's Answer dated December 24, 2003 (Paper No. 23), a Reply Brief was filed February 23, 2004 (Paper No. 25), which was acknowledged and entered by the Examiner as indicated in the communication dated April 7, 2004 (Paper No. 26).

skill in the particular art would not have suggested to one of ordinary skill in the art the obviousness of the invention as recited in claims 1-7. Accordingly, we reverse.

We consider first the Examiner's 35 U.S.C. § 112, second paragraph, rejection of claims 2 and 3 as failing to particularly point out and distinctly claim the invention. We note that the general rule is that a claim must set out and circumscribe a particular area with a reasonable degree of precision and particularity when read in light of the disclosure as it would be by the artisan. In re Moore, 439 F.2d 1232, 1235, 169 USPQ 236, 238 (CCPA 1971). Acceptability of the claim language depends on whether one of ordinary skill in the art would understand what is claimed in light of the specification. Seattle Box Co. v. Industrial Crating & Packing, Inc., 731 F.2d 818, 826, 221 USPQ 568, 574 (Fed. Cir. 1984).

Initially, we agree with the Examiner (Answer, pages 15 and 16) that, contrary to Appellant's arguments, the basis of the indefiniteness rejection is not that the specifications for the MPEG-1 and MPEG-2 standards recited in dependent claims 2 and 3 would, at some future time, become unavailable. Rather, the Examiner's concern is that, since the MPEG standards may change over time, the metes and bounds of the claims cannot be determined. We do not find, however, on the record before us, any support for the Examiner's requirement that specific versions and dates for the MPEG standards must be provided to satisfy the second paragraph of 35 U.S.C. § 112.

In the present situation, it is our opinion that there is no ambiguity or uncertainty since the claim language must be interpreted to mean exactly what is set forth in the words of the claim, i.e., "MPEG-1" in claim 2 means "MPEG-1" as it would be understood by one of ordinary skill at the time of filing. It is well settled that a claim cannot have different meanings at different times and, thus, its meaning must be interpreted as of its effective filing date. See Markman v. Westview Instruments, Inc., 52 F.3d 967, 986, 34 USPQ2d 1321, 1335 (Fed. Cir. 1995) (en banc) ("(T)he focus is on the objective test of what one of ordinary skill in the art at the time of the invention would have understood the term to mean."), aff'd, 517 U.S. 370 (1966).

In view of the above discussion, it is our view that the skilled artisan, having considered the specification in its entirety, would have no difficulty ascertaining the scope of the invention recited in claims 2 and 3. Therefore, the rejection of claims 2 and 3 under the second paragraph of 35 U.S.C. § 112 is not sustained.

Turning to a consideration of the Examiner's obviousness rejection of the appealed claims, we note that in rejecting claims under 35 U.S.C. § 103, it is incumbent upon the Examiner to establish a factual basis to support the legal conclusion of obviousness. See In re Fine, 837 F.2d 1071, 1073, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988). In so doing, the Examiner is expected to make the factual determinations set forth in Graham v. John Deere Co., 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), and to provide a reason why one

having ordinary skill in the pertinent art would have been led to modify the prior art or to combine prior art references to arrive at the claimed invention. Such reason must stem from some teaching, suggestion or implication in the prior art as a whole or knowledge generally available to one having ordinary skill in the art. Uniroyal Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 1051, 5 USPQ2d 1434, 1438 (Fed. Cir.), cert. denied, 488 U.S. 825 (1988); Ashland Oil, Inc. v. Delta Resins & Refractories, Inc., 776 F.2d 281, 293, 227 USPQ 657, 664 (Fed. Cir. 1985), cert. denied, 475 U.S. 1017 (1986); ACS Hospital Systems, Inc. v. Montefiore Hospital, 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). These showings by the Examiner are an essential part of complying with the burden of presenting a prima facie case of obviousness. Note In re Oetiker, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992).

With respect to the Examiner's 35 U.S.C. § 103(a) rejection of appealed independent claim 1, Appellant asserts several arguments in support of the position that the Examiner has failed to establish a prima facie case of obviousness. After reviewing the arguments of record from Appellant and the Examiner, we find particularly compelling Appellant's arguments (Brief, pages 42-45; Reply Brief, pages 12-16) which assert a failure by the Examiner to establish proper motivation for the proposed combination of the Bowater and Davis references.

The Examiner's stated rationale (Answer, page 6) for the proposed combination of references, in addition to relying on generalized and unsupported assertions of common knowledge and common sense, is that "one of ordinary skill... would have had no difficulty in providing the intra frame processings as taught by Davis et al within the encoder and decoder of Bowater et al." Similarly, the Examiner asserts (id., at 7) that one of ordinary skill ... would have "no difficulty in providing the required header data for the MPEG encoding/decoding" It is well settled, however, that the mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Fritch, 972 F. 2d 1260, 1266, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992).

Further, a review of the record before us reveals no evidence forthcoming from the Examiner that would provide support for the Examiner's conclusion of obviousness. "[T]he Board cannot simply reach conclusions based on its own understanding or experience - or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings." In re Zurko, 258 F.3d 1379, 1386, 59 USPQ2d 1693, 1697 (Fed. Cir. 2001). The Examiner must not only make requisite findings, based on the evidence of record, but must also explain the reasoning by which the findings are deemed to support the asserted conclusion. See In re Lee, 277 F.3d 1338, 1343, 61 USPQ2d 1430, 1433-34 (Fed. Cir.

2002). The court has also recently expanded their reasoning on this topic in In re Thrift, 298 F. 3d 1357, 1363, 63 USPQ2d 2002, 2008 (Fed. Cir. 2002).

As pointed out by Appellant (Brief, pages 12-14), the disclosure of Bowater is directed to a system which displays an image on a screen and allows for the irregular arrival of frames of video data due to transmission across an asynchronous network. As part of the solution to the irregular frame arrival time problem, Bowater adds null frames to the transmitted still and relative frames at the decoder end of the system, i.e., at destination computer 13. Davis, on the other hand, is directed to a system for preprocessing streams of compressed encoded data so as to permit a decoder to decode the streams back-to-back without being reset. As part of the preprocessing in Davis, video frames are deleted that cannot be properly decoded because they are not temporally correct, and the number of audio frames is adjusted so that the audio and video sequences start within a predetermined time. In our view, given the disparity of problems addressed by the applied prior art references, and the differing solutions proposed by them, any attempt to combine them as proposed by the Examiner could only come from Appellant's own disclosure and not from any teaching or suggestion in the references themselves.

It is further our opinion that even assuming, arguendo, that proper motivation were established for combining Bowater and Davis, there is no indication from the Examiner as

to how and in what manner the references would be combined to arrive at the specific combination set forth in independent claim 1. In our view, the Examiner has combined the video data preprocessing teachings of Davis with the irregular frame rate display features of Bowater in some vague manner without specifically describing how the teachings would be combined to arrive at the claimed invention. This does not persuade us that one of ordinary skill in the art having the references before her or him, and using her or his own knowledge of the art, would have been put in possession of the claimed subject matter. In view of the above discussion, in order for us to sustain the Examiner's rejection, we would need to resort to impermissible speculation or unfounded assumptions or rationales to supply deficiencies in the factual basis of the rejection before us. In re Warner, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968), rehearing denied, 390 U.S. 1000 (1968).


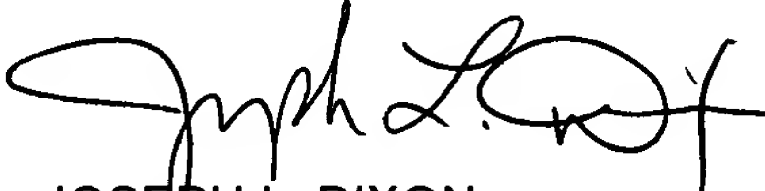
We have also reviewed the Florencio reference applied by the Examiner to address the I frame data buffer storage feature of dependent claim 4. We find nothing, however, in the disclosure of Florencio which would overcome the innate deficiencies of Bowater and Davis discussed supra.

Accordingly, since we are of the opinion that the prior art applied by the Examiner does not support the obviousness rejection, we do not sustain the Examiner's 35 U.S.C.

§ 103(a) rejection of independent claim 1, nor of claims 2-7 dependent thereon.

Therefore, the decision of the Examiner rejecting claims 1-7 is reversed.

REVERSED

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|  |) | |
| JOSEPH F. RUGGIERO |) | |
| Administrative Patent Judge |) | BOARD OF PATENT |
| |) | APPEALS |
|  |) | AND |
| JOSEPH L. DIXON |) | INTERFERENCES |
| Administrative Patent Judge |) | |

JFR/lp

BARRETT, Administrative Patent Judge, concurring.

I agree with the majority's decision, but write separately because I feel that a new ground of rejection should be entered as to at least independent claim 1 under 35 U.S.C. § 102(e) over Gordon, U.S. Patent 6,324,217, issued November 27, 2001, based on an application filed July 8, 1998 (three months before appellant's filing date) (copy attached). I would leave it to the examiner determine the patentability of dependent claims 2-7.

Gordon is directed to encoding of still images such as a movie information screen (MIS) to make streams that are well behaved, i.e., that do not cause decoder buffer underflow or overflow (col. 1, line 52, to col. 2, line 6). Gordon discloses inserting NULL frames after an I-frame (col. 3, lines 36-47):

GOP replicator 120 utilizes the still image representative I-frame as an anchor frame for a GOP data structure. The GOP data structure formed by the GOP replicator 120 comprises the still image representative I-frame followed by a plurality of NULL forward predictive coded frames (P-frames). A NULL forward predictive coded frame comprises a "zero motion vector frame[]" (i.e., a P-frame having relatively inconsequential motion vectors) based on an anchor frame, e.g., the still image representative I-frame. Thus, each NULL P-frame, when decoded, will produce a picture that is virtually identical to the anchor frame from which it is based.

Gordon also discloses a data structure for decoding the video bitstream, which is considered a header (col. 4, lines 53-65):

In the above-described apparatus 100, the GOP replicator 120 utilizes the insertion of N NULL P-frames, where N is an integer, after an I-frame to form a

GOP. In this embodiment of the invention each of the NULL P-frames comprises a pre-defined data structure that is simply inserted into the appropriate memory location following the stored I-frame. In the case of an MPEP2 information stream, a NULL frame utilized by the inventor comprises a 38 byte data structure that informs the decoder to utilize all macroblocks from the previous anchor frame and to do so without displacing the macroblocks (i.e., zero motion vectors). In essence, the NULL P-frames are interpreted by the decoder as "repeat last anchor frame" commands.

In addition, the presence of a header is considered inherent in an MPEP-2 video bitstream. The claimed result of "images that do not appear to pulse visually" is inherent in Gordon.

It is noted that Gordon claims the same patentable invention as appellant and, therefore, cannot be antedated by an oath or declaration under 37 C.F.R. § 1.131.


LEE E. BARRETT
Administrative Patent Judge

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DONALD E. SCHREIBER
DONALD E. SCHREIBER A PROFESSIONAL CORPORATION
POST OFFICE BOX 2926
KINGS BEACH, CA 96143-2926